

CLAIMS:

1. (previously presented) A ceramic composition comprising:
a plurality of oxide shapes;
a filler powder comprising particles of zirconia-hafnia; and
a binder material partially filling gaps between the oxide shapes and the filler powder;
wherein the filler powder particles comprise an average size of at least 30 microns and exhibit micro-cracks contained within the particles and not propagated into the binder material.
2. (original) The composition of claim 1, wherein the portion of hafnia in the zirconia-hafnia is in the range of 50-95 mol%.
3. (original) The composition of claim 1, wherein the portion of hafnia in the zirconia-hafnia is in the range of 60-75 mol%.
4. (original) The composition of claim 1, wherein the portion of hafnia in the zirconia-hafnia is at least 20 mol% and less than 100 mol%.
5. (original) The composition of claim 1, wherein the filler powder comprises composite particles each comprising zirconia-hafnia and alumina.
6. (original) The composition of claim 5, wherein the portion of alumina in the composite particles is in the range of 20-50 mol%.
7. (previously presented) The composition of claim 1, wherein the filler powder comprises particles having an average size range of 30-50 microns.

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8. (original) The composition of claim 1, further comprising:
the oxide shapes comprising hollow mullite spheres;
the filler powder comprising composite particles comprising zirconia-hafnia and alumina; and
the binder material comprising alumina.

9. (original) The composition of claim 1 disposed on an oxide-oxide ceramic matrix composite substrate material.

10. (original) The composition of claim 9, wherein the portion of hafnia in the zirconia-hafnia is selected to limit a phase transformation of the zirconia-hafnia from a monoclinic phase to a tetragonal phase to occur throughout no more than 20% of a thickness of the material remote from the substrate material at a predetermined use temperature.

Claims 11-21 (cancelled).